Cyclones and gales.—There was somewhat more storm activity than there had been during the quiet June just previous. Apart from the vicinity of the American coast the most notable storm occurred about the middle of the This was close to the Middle Atlantic States on the 12th, as a Low of only moderate strength; but as it moved toward the east-northeast the energy increased, and near midocean some vessels met strong gales (force 9) between noon and midnight of the 16th. There was decidedly high pressure at this time over and near the Bay of Biscay, and the Low turned more toward the northnortheast, away from the chief steamship routes, and was centered near Iceland late on the 18th with somewhat diminished force.

From the northeastern part of the Gulf of Mexico northward near the United States coast a disturbance usually of small size but considerable strength passed just before the close of the month. Midnight of July 31 found this storm in about the latitude of New Jersey. The greatest wind force reported by any vessel meeting it was 11, and it was only in connection with this Low that any July vessel report from North Atlantic waters has mentioned that force. A detailed account of this disturbance appears

elsewhere in this issue.

Fog.—As is expected in July, there was considerable fog over North Atlantic waters to northward of the fortieth

parallel. The western areas had, as a rule, somewhat less fog than during the month of June just preceding; but the eastern areas to northward of 45° latitude noted a little more fog than June had brought. Reports indicate the eastern 5° square of greatest occurrence to have been that from 45° to 50° N., 30° to 35° W., with 10 days, chiefly after the 17th. Close to the British Isles fog was experienced mainly on the opening days and about the 12th and 18th.

In the Grand Banks region fog was prevalent most of the month, but somewhat less than usual from the 9th to 16th. The square 40° to 45° N., 45° to 50° W., led all others anywhere in the North Atlantic, with 20 days. Near Cape Cod and Western Nova Scotia the square 40° to 45° N.,

65° to 70° W., had 18 days.

Waters near Long Island had much less fog than during June, and the decrease near the New Jersey coast and Delaware Bay was even more marked. A very little fog was met, however, still farther southward, even near the coast of North Carolina.

Two accidents due to fog were noted as occurring near the Massachusetts coast. In the more serious of these, on the 12th, Handkerchief Shoals lightship was struck and damaged enough to compel withdrawal for repairs, one of the crew suffering injury.

OCEAN GALES AND STORMS, JULY 1937

| Vessel | Voyage | | Position at time of lowest barometer | | Gale began | Time of lowest | Gale ended | Low- est ba- | Direc- tion of wind | Direction and force of wind | Direc- tion of wind | Direction and high- | Shifts of wind near time of low- |
|--|------------------------------------|--|--|----------------------------------|----------------|------------------------------|----------------------|----------------------------|---------------------------|-------------------------------------|---------------------------|---------------------------|-------------------------------------|
| | From- | То- | Latitude | Longi- tude | July- | barometer July— | July- | rom- eter | when gale began | at time of lowest ba- rometer | when gale ended | est force of wind | est barometer |
| NORTH ATLANTIC OCEAN | | | . , | 0 / | | | | Inches | | | | | |
| Turrialba, Am. S. S. Black Hawk, Am. S. S. | Boston Rotterdam | Tela New York | 16 00 N. 49 53 N. | 87 24 W. 7 42 W. | 2 3 7 | 7a, 3 Noon, 3 | 3 | 29.82 29.65 | SE NW | E, 3 S, 4 | SE NW | SE, 6 NW. 8 | s-nw. |
| Nashaba, Am. S. S. Katanga, Belg. S. S. Do. | New Orleans Lobito | Havre Antwerpdo | 39 56 N. 9 30 N. 14 39 N. | 55 23 W. 16 30 W. 17 57 W. | 12 16 | 8a, 7 11p, 12 11a, 14 | 13 16 | 29. 78 29. 86 29. 90 | WSW | SSW, 8 NW, 9 N, 2 | WNW NNE | SSW, 8 NW, 9 N, 7 | wsw-nw-w. |
| Granada, Hond. S. S Duivendrecht, Du. M. S- Emile Francqui, Belg. S. S. | Key West Killingholm Antwerp | Frontera Houston New York | 18 54 N. 36 42 N. 47 26 N. | 92 36 W. 50 38 W. 36 02 W. | 14 15 15 | 6a, 15 Noon, 15. —, 16 | 14 15 16 | 29. 91 30. 01 29. 24 | SE SW SW | ESE, 4 SW, 8 SW, 8 | SSE WSW NW | SSE, 6 SW, 8 NW, 8 | SW-W. Steady. |
| Edam, Du. S.S | Rotterdam New York Montreal | HavreCardiff | 47 24 N. 48 38 N. 51 55 N. | 36 16 W. 28 46 W. 10 15 W. | 15 16 19 | 9a, 16 10p, 16 8p, 20 | 16 17 21 | 29. 24 29. 34 29. 80 | ENE S SW | WSW, 6 SSW, 8 SW, 8 | NNW W | NNW, 9 SSW, 9 SW, 9 | SSW-NW. S-SW. Steady. |
| Blankaholm, Swed, M. S. Coloradan, Am S. S. | Gothenburg Cristobal | Montreal Ponce | 59 12 N. 13 06 N. | 26 10 W. 74 45 W. 20 02 W. | 20 25 26 | 8p, 20 4p, 25 | 21 26 26 26 | 29. 29 29. 80 29. 79 | WNW. ENE | NW, 8 E, 6 88E, 7 | NNW E SSE | NW, 9 E, 6 SSE, 8 | W-NW. None. 88E-W. |
| West Kyska, Am. S. S Mariana, Am. S. S Tela, Hond. S. S | Bremen Tampa Charleston | Tampa New Orleans Philadelphia | 44 42 N. 27 47 N. 33 10 N. | 83 41 W. 78 08 W. | 29 31 | 2p, 26 9a, 29 1a, 31 | 29 31 | 29.80 29.75 | SE NE | NW, 5 NE, 9 | S NW | SE, 8 NE, 9 | SE-SW-N. NE-NW. |
| Capitaine Paul Lemerle, Fr. S. S. Gulfpride, Am. M. S | Newport News. Philadelphia | San Pedro Ma- coris. Port Arthur | 36 00 N. 36 00 N. | 75 00 W. | 31 | Noon, 31. | 31 | 1 29. 92 29. 82 | NE | NNE, 10 | N | NNE, 10 N. 8 | NE-NNW. |
| Peten, Am. S. S. Coppename, Am. S. S. | Habana Castilla | New York Boston | 35 08 N. 236 08 N. | 75 12 W. 74 06 W. 73 42 W. | 31 31 | Noon, 31. 2p, 31 | 31 31 31 | 29. 79 29. 40 | ssw | NW, 9 N, — ENE, 4 | NW | NW, 9 NW, 9 NW, 8 | W-NW-NNE. SSW-N-NW. E-ENE-NW. |
| Santa Lucia, Am. S. S. Turrialba, Am. S. S. Medea, Du. S. S. | New York Boston New York | Cristobal Habana Inagua | 36 30 N. 37 42 N. 36 48 N. | 70 50 W. 73 54 W. | 31 31 31 | 2p, 31 7p, 31 3p, 31 | 31 31 | 29. 56 29. 64 29. 58 | SSW | SSW, 7 NNW, 11. | WSW | SW, 9 NNW, 11. | E-SSW-SW. E-NNW. |
| NORTH PACIFIC OCEAN | | | | | | | | | | | | • | |
| Skramstad, Nor. M. S General Sherman, Am. S. S. | Yawata Yokohama | Taruna, D. E. L. San Francisco | ² 17 57 N. ² 47 51 N. | 128 00 E. 178 08 W. | 1 2 | 4p, 1 2a, 2 | 2 1 | 29. 42 29. 74 | ESE | ESE, 8 8SE, 7 | S SSE | ESE, 8 SSE, 9 | E-SSE. |
| Pierre L. D., Fr. M. S Golden Mountain, Am. | do | Saigon San Francisco | | 119 00 E. 148 52 E. | 3 13 | 8a, 3 Noon, 13. | 3 13 | 29. 47 30. 01 | NW 88E | WNW, 9 SSE, 6 | | WNW, 9 8, 10 | NW-8W. None. |
| S. S. Birmingham City, Am. S. S. | Balboa | Los Angeles | 14 48 N. | 94 30 W. | 21 | 5a, 22 | 22 | 29. 76 | N | N, 8 | ESE | N, 8 | |

Barometer uncorrected.
 Position approximate.
 August.